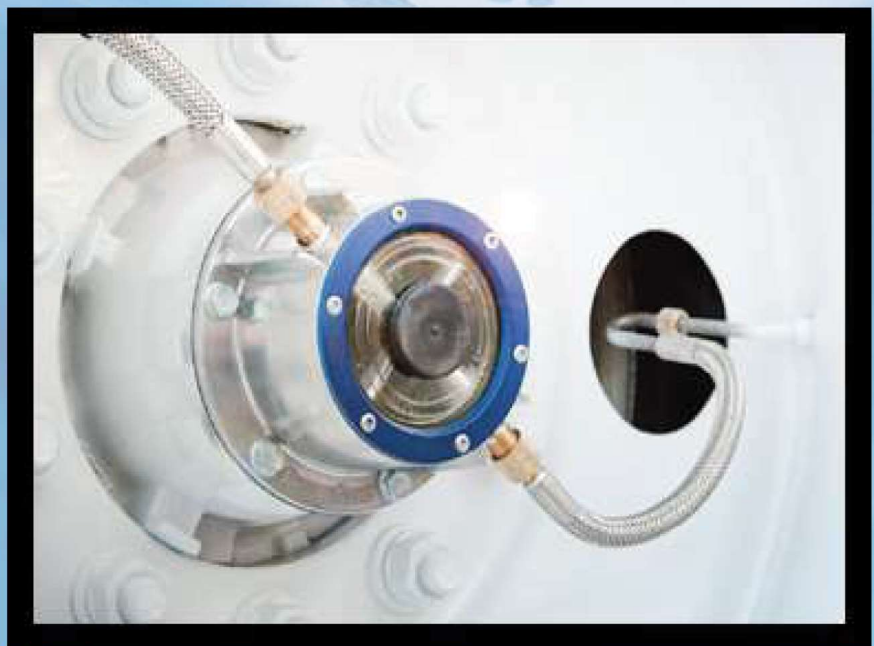


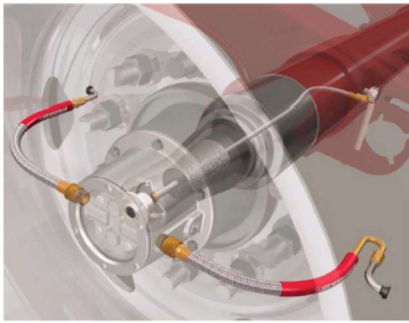
# PressureGuard Automatic Tire Inflation Systems

**PRESSURE** **G** **GUARD**™  
TIRE INFLATION SYSTEMS

Sales & Marketing

Novelbay International Ltd  
Hong Kong  
[www.novelbay.org](http://www.novelbay.org)





### Nearly 3 Decades of Reliability

**PressureGuard**, maker of the most robust and durable tire inflation system on the market, has been serving North America's commercial vehicle industry since 1987.

In 2014, **PressureGuard** was acquired by Servitech Industries, headquartered in Nashville, TN. **PressureGuard** joins the family of Servitech offerings, which include GMS, Rubicon Coatings and NitroPlate

### Tires Live & Dies by Air Pressure

Keeping the proper tire air pressure is critical to the successful operation of your fleet—and is the least expensive way to save on fuel. With new fuel efficiency regulations on the books, that's more important than ever.

**PressureGuard** maintains the proper inflation of your tires to protect your investment. With consistent, dependable and proper tire inflation, you can effectively reduce tire repair costs, extend tire life and improve fuel economy—and produce higher-quality casings for retreads.

But there's more to the story than fuel efficiency. According to the National Highway Traffic Safety Administration, 33,000 injuries occur every year due to underinflated tires, and 23,000 tow-away crashes happen as a result of blowouts and flat tires.

Let **PressureGuard** help maintain the proper air pressure in your tires. You'll save money on fuel and repairs, stay compliant with fuel efficiency rules, and protect your drivers and others on the road.

### Robust Construction and Engineering **How Does It Works!?**

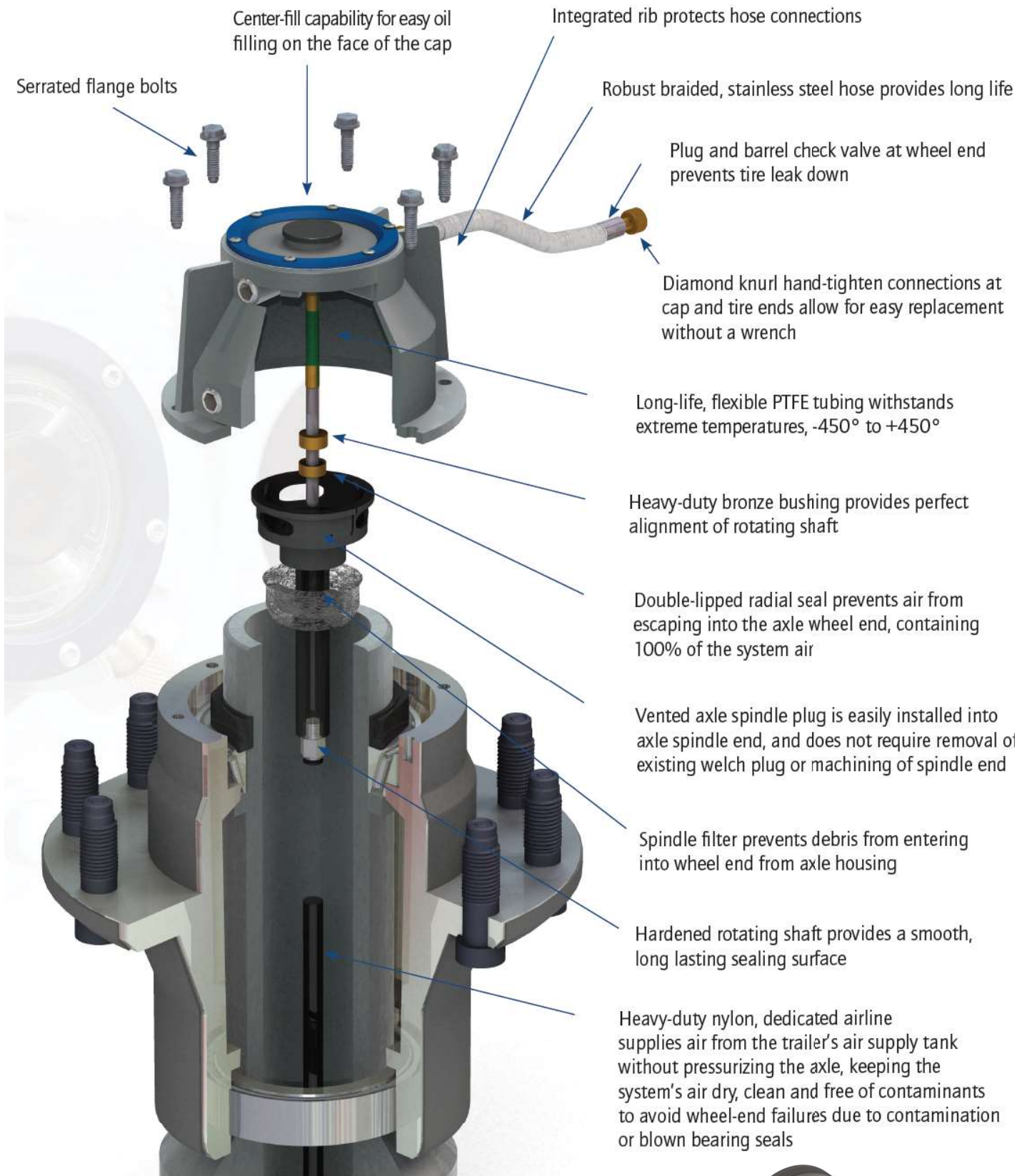
**PressureGuard** outshines the competition with durable components that increase the system's life, decreasing maintenance and replacement costs and the hassle of roadside tire repairs.

**PressureGuard** routes air from the trailer air supply tank to the tires, maintaining pressure at a pre-set level. If a tire's pressure drops below the pre-set level, compressed air will replace the lost volume and return the tire to proper inflation levels to reduce wear and improve fuel consumption.

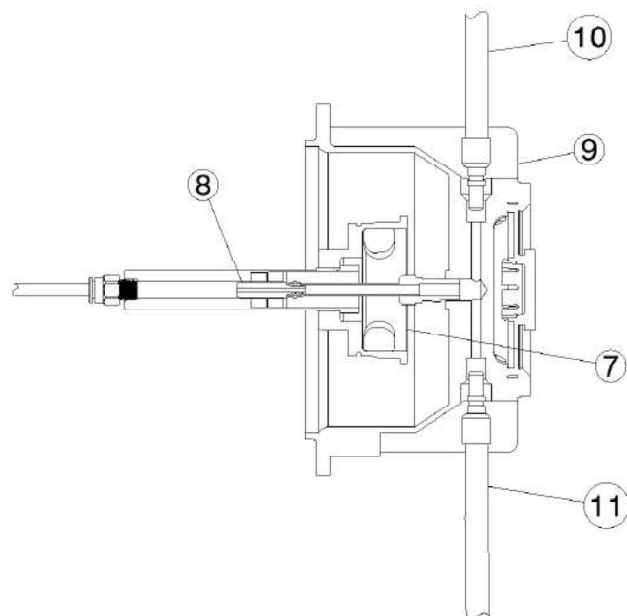
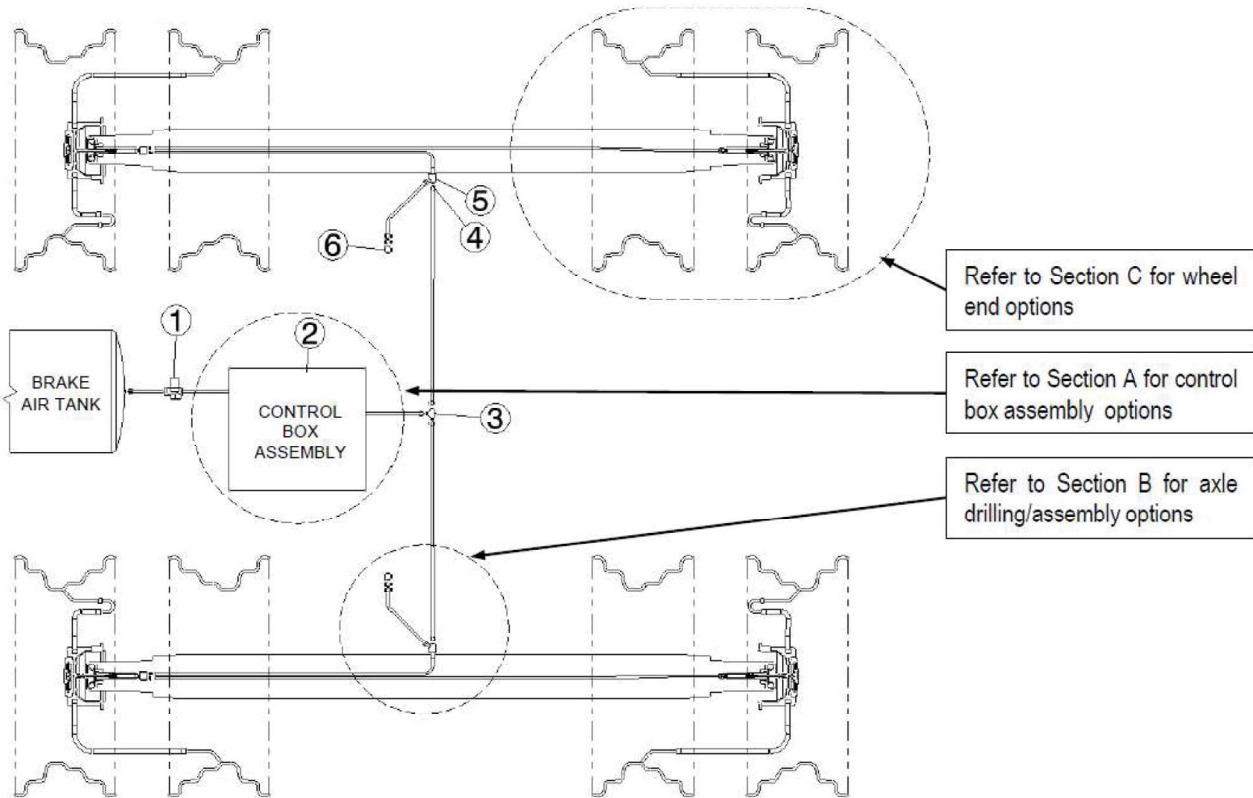
In cases where immediate action is warranted—where tire pressure has decreased 20 psi or more—a warning light alerts the driver so that the problem can be isolated and repaired at the next terminal or maintenance facility. This pre-emptive warning and automatic inflation system can avert additional tire damage, excessive wear, blows-outs and damage to other vehicles sharing the road.

**PressureGuard's** durable system components require minimal service and replacement, and most components can be reused when servicing wheel ends.

**Illustration**



# SYSTEM LAYOUT EXAMPLE: TANDEM AXLE DUAL TIRE 1-HOLE AXLE DRILLING



## MAJOR SYSTEM COMPONENTS

- 1 – Pressure Protection Valve (PPV)
- 2 – Control Box Assembly (refer to Section A for options)
- 3 – Air Line T-Fitting
- 4 – Axle Drill Fitting
- 5 – Axle Y-Fitting
- 6 – Breather Vent Assembly
- 7 – Spindle Plug Assembly (refer to Section C for options)
- 8 – Rotating Shaft Assembly (refer to Section C for options)
- 9 – Hubcap Assembly (refer to Section C for options)
- 10 – Inner Tire Hose Assembly (refer to Section C for options)
- 11 – Outer Tire Hose Assembly (refer to Section C for options)

## SECTION A - CONTROLS

### AIR TANK PLUMBING COMPONENTS:



10047  
Pressure protection valve



ATP 1  
Air tank plumbing kit with PPV + hardware connections

### ELECTRICAL (LOW-PRESSURE WARNING LIGHT) COMPONENTS:



20093L  
LED warning light with bracket



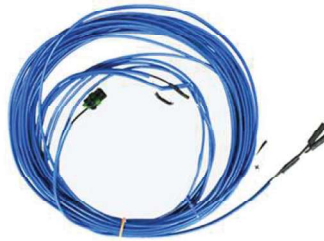
20093  
LED warning light kit with label + hardware

### ELECTRICAL HARNESSES:



E0070  
Electrical harness for 7-way power

*70' cable with terminals mounted: Delphi connector at low-pressure sensor and female .180 bullet connectors at low-pressure warning light (customer to cut and splice at connection to trailer 7-way power)*



E5555  
Electrical harness for 7-way power

*Pre-assembled harness for connection to trailer 7-way power, terminals mounted: Delphi connector at low-pressure sensor, female .180 bullet connectors at low-pressure warning light, bare copper at trailer 7-way power, no cutting/splicing \* 5' length from 7-pole power connection to junction, 5' length from warning light to junction, 55' length from junction to low-pressure sensor*



E2166S  
Electrical harness for ABS power

*Pre-assembled harness for connection to trailer ABS power, terminals mounted: Delphi connector at low-pressure sensor, female .180 bullet connectors at low-pressure warning light, Delphi connector at trailer ABS power, no cutting/splicing \* 21' length from low-pressure sensor to ABS power connection, 66' length from low-pressure sensor to warning light*

## SECTION A - CONTROLS (CONT'D)

### ELECTRICAL HARNESSSES (cont'd):



**E XXYY S**  
Electrical harness for ABS power

*\*CUSTOM LENGTH\* harness for connection to trailer ABS power, terminals mounted: Delphi connector at low-pressure sensor, female .180 bullet connectors at low-pressure warning light, Delphi connector at trailer ABS power, no cutting/splicing*  
*\* XX = length (ft.) from low-pressure sensor to ABS power connection, YY = length from low-pressure sensor to warning light*



**E10SP-EN**  
Enclosure pigtail

*\* Connects PressureGuard electrical harness to any standard inflate-only regulator in enclosure (through enclosure wall)*



**PCFA-09**  
ABS power adapter

*\* Connects PressureGuard electrical harness to ABS controller as power source*

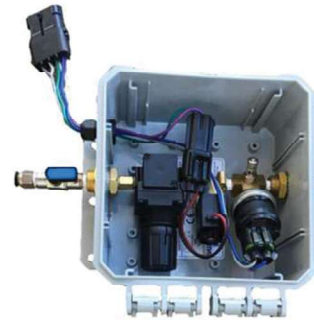
### REGULATOR & CONTROL BOX ASSEMBLIES:



**20046N (shown)**  
Regulator assembly, open-mount bracket  
*Standard inflate-only*



**20046NE (shown)**  
Regulator assembly, enclosure mount  
*Standard inflate-only*



**20046-ID (shown)**  
Regulator assembly, enclosure mount  
*Inflate - deflate*

FUNCTIONALITY	DESCRIPTION	PART NO.	TIRE PRESSURE SETTING	LOW-PRESSURE SENSOR
Inflate only	Regulator assembly, open-mount bracket	20045N	Up to 85 psi	70 psi
		20046N	90 - 105 psi	80 psi
		20047N	110 - 120 psi	100 psi
	Regulator assembly, enclosure mount	20045NE	Up to 85 psi	70 psi
		20046NE	90 - 105 psi	80 psi
		20047NE	110 - 120 psi	100 psi
Inflate - deflate	Regulator assembly, enclosure mount	20045-ID	Up to 85 psi	70 psi
		20046-ID	90 - 105 psi	80 psi
		20047-ID	110 - 120 psi	100 psi

## SECTION A - CONTROLS (CONT'D)

### REGULATOR & CONTROL BOX COMPONENTS:



46-930  
System shutoff valve (1/8" NPT)



10280 (shown)  
Low-pressure sensor

- 10270 = 70 psi
- 10280 = 80 psi
- 10200 = 100 psi

## SECTION B - PLUMBING

### AIR LINE COMPONENTS:



10050-DOT  
1/4" air line  
*\* Use only PressureGuard approved tubing*



10107  
1/4" split loom



10028  
1/4" air line tee

### AXLE DRILL FITTINGS:



10042D  
Axle drill fitting  
1/8" NPT x 1/4" tubing  
*\* Standard PressureGuard axle drilling*



10040D  
Axle drill fitting  
1/4" NPT x 1/4" tubing  
*\* Hendrickson axle drilling*



10040C  
Low-profile axle drill fitting  
1/4" NPT with internal air line to spindle plug  
*\* Intraax/Vantraax axle drilling*

### BREATHER VENT ASSEMBLIES:



28006  
1-hole breather assembly  
*\* Only for 1/8" NPT 1-hole axle drilling*



28003 (shown)  
3-hole breather assembly

- 28003 = 1/8" NPT axle drilling
- 28004 = 1/4" NPT axle drilling, 45° fitting
- 28005 = 1/4" NPT axle drilling, straight fitting

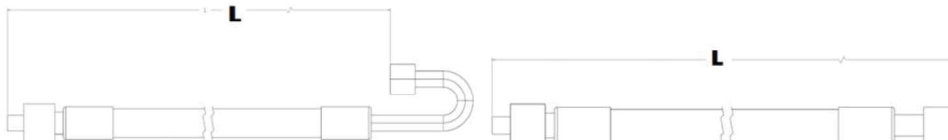
## SECTION C - WHEEL-ENDS




TIRE HOSES:



38001 (shown)  
Outer tire hose for integral hubcap, 22.5" + dual tire

38000 (shown)  
Inner tire hose for integral hubcap, 22.5" + dual tire



PRESSUREGUARD HUBCAP STYLE	WHEEL TYPE	TIRE SIZE	WHEEL MATERIAL	TIRE POSITION	TIRE-END FITTING	HOSE PART NO.	"L" DIM. (ABOVE)
 <p><b>INTEGRAL HUBCAPS</b></p> 	Dual	17.5"	Aluminum, Steel or Combination	Inner	Straight	38003	12.5"
				Outer	180°	38004	9.5"
		19.5"	Aluminum	Inner	Straight	38003	12.5"
				Outer	180°	37004	11.0"
			Steel or Combination	Inner	Straight	37003	14.0"
				Outer	180°	38004	9.5"
		22.5"	Aluminum	Inner	Straight	38000	14.5"
				Outer	180°	38001	11.0"
	Steel or Combination	Inner	Straight	37000	16.5"		
		Outer	180°	37001	12.5"		
	24.5"	Aluminum	Inner	Straight	38000	14.5"	
			Outer	180°	37001	12.5"	
		Steel or Combination	Inner	Straight	37000	16.5"	
			Outer	180°	38001	11.0"	
Single	22.5"	Aluminum	Single	Straight	38002	12.5"	
		Steel	Single	180°	38001	11.0"	
 <p><b>ROTATING &amp; SCREW-ON HUBCAPS</b></p> 	Dual	17.5"	Aluminum, Steel or Combination	Inner	Straight	37003	14.0"
				Outer	180°	37004	11.0"
		19.5"	Aluminum	Inner	Straight	37003	14.0"
				Outer	180°	37001	12.5"
			Steel or Combination	Inner	Straight	37000	16.5"
				Outer	180°	38001	11.0"
		22.5"	Aluminum	Inner	Straight	37000	16.5"
				Outer	180°	37001	12.5"
	Steel or Combination	Inner	Straight	37000	16.5"		
		Outer	180°	37001	12.5"		
	24.5"	Aluminum	Inner	Straight	37000	16.5"	
			Outer	180°	37001	12.5"	
	Steel or Combination	Inner	Straight	37000	16.5"		
		Outer	180°	37001	12.5"		
Single	22.5"	Aluminum	Single	Straight	38002	12.5"	
		Steel	Single	180°	37001	12.5"	



## SECTION C - WHEEL-ENDS (CONT'D)

### HUBCAP ASSEMBLIES:

#### PressureGuard Integral Hubcap Assemblies



75166 (shown)  
Tapered spindle axles  
(N, TN, F22, etc.)

\* 5.50" bcd



85128 (shown)  
Parallel spindle axles  
(P, TP, F24, etc.)

\* 6.75" bcd

Axle Spindle  
Lubricant  
Application (Tires)  
Gasket Part No.  
Bolt Part No.  
Assembly Part No.

Tapered (N, TN, F22, etc.) - 5.50" bcd			
Grease		Oil	
Dual	Single	Dual	Single
50008	50008	50008	50008
10021	10021	10021	10021
75166	75166-S	75168	75168-S

Parallel (P, TP, F24, etc.) - 6.75" bcd			
Grease		Oil	
Dual	Single	Dual	Single
80008	80008	80008	80008
10021	10021	10021	10021
85126	85126-S	85128	85128-S

\* All PressureGuard integral hubcap assemblies include hubcap gaskets and 6 hubcap bolts

#### PressureGuard Rotating Hubcap Assemblies



203P-OD (shown)  
Tapered spindle axles  
(N, TN, F22, etc.)

\* 5.50" bcd



257P-OD (shown)  
Parallel spindle axles  
(P, TP, F24, etc.)

\* 6.75" bcd

Axle Spindle  
Lubricant  
Application (Tires)  
Gasket Part No.  
Bolt Part No.  
Assembly Part No.

Tapered (N, TN, F22, etc.) - 5.50" bcd			
Grease		Oil	
Dual	Single	Dual	Single
116	116	116	116
10021	10021	10021	10021
203P-GD	203P-GS	203P-OD	203P-OS

Parallel (P, TP, F24, etc.) - 6.75" bcd			
Grease		Oil	
Dual	Single	Dual	Single
111	111	111	111
10021	10021	10021	10021
257P-GD	257P-GS	257P-OD	257P-OS

\* All PressureGuard rotating hubcap assemblies include hubcap gaskets and 6 hubcap bolts

#### PressureGuard Screw-on Hubcap Assemblies



274P-GD (shown)  
Parallel spindle axles  
(P, TP, F24, etc.)

Axle Spindle  
Lubricant  
Application (Tires)  
O-ring Part No.  
Assembly Part No.

Parallel (P, TP, F24, etc.) - 6.75" bcd			
Grease		Oil	
Dual	Single	Dual	Single
10080	10080	10080	10080
274P-GD	274P-GS	274P-OD	274P-OS

## SECTION C - WHEEL-ENDS (CONT'D)

### SPINDLE PLUG ASSEMBLIES:

#### 1.75" spindle i.d. (N, TN, F22 spindle) applications



**21750**  
1.75" spindle plug assembly for 3-hole axle drilling and roadside 1-hole axle drilling



**21750-1H**  
1.75" spindle plug assembly for curbside 1-hole axle drilling

#### 2.75" spindle i.d. (P, TP, F24 spindle) applications \*\* GREASE LUBE \*\*



**22750**  
2.75" spindle plug assembly for 3-hole axle drilling and roadside 1-hole axle drilling



**22750-1H**  
2.75" spindle plug assembly for curbside 1-hole axle drilling



**22750S**  
2.75" spindle plug assembly for 3-hole Intraax/Vantraax axle drilling

#### 2.75" spindle i.d. (P, TP, F24 spindle) applications \*\* OIL LUBE \*\*



**22750M**  
2.75" spindle plug assembly for oil lube, 3-hole axle drilling and roadside 1-hole axle drilling



**22750M-1H**  
2.75" spindle plug assembly for oil lube, curbside 1-hole axle drilling



**22750MS**  
2.75" spindle plug assembly for oil lube, 3-hole Intraax/Vantraax axle drilling

#### Solid spindle (A26, K30, certain SSA) and pre-2007 spindle plug applications



**20072**  
Air cylinder with seal, no spindle plug, for directly-threaded (solid spindle) applications and for use with all spindle plugs prior to 2007

## SECTION C - WHEEL-ENDS (CONT'D)

### ROTATING SHAFT ASSEMBLIES:



10565

Rotating shaft assembly

*\* 5" OAL for all integral hubcap applications with N spindle axes and certain rotating and screw-on applications with P spindle axes*



10865

Rotating shaft assembly

*\* 6" OAL for all integral hubcap applications with P spindle axes*



10665ML (shown)

Cut-to-length rotating shaft assembly

Part no. 10665 = 1" steel shaft

Part no. 10665ML = 1.75" steel shaft

Part no. 10665XL = 2.75" steel shaft

*\* For all UNKNOWN spindle/hub combinations*